Joseph Frederick Laucius

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY
Civil Action No. 83-2864(SA)

ANTONIO CIPOLLONE, individually, and as Executor of the Estate of Rose D. Cipollone,

Plaintiff,

-vs-

LIGGETT GROUP, INC., a Delaware Corporation; PHILIP MORRIS, INCORPORATED, a Virginia Corporation; and LOEW'S THEATRES, INC., a New York Corporation,

Defendants.

TRANSCRIPT OF PROCEEDINGS

Newark, New Jersey

May 17, 1988
AFTERNOON SESSION

BEFORE:

HONORABLE H. LEE SAROKIN
UNITED STATES DISTRICT JUDGE

APPEARANCES:

BUDD, LARNER, GROSS, PICILLO, ROSENBAUM, GREENBERG & SADE, ESQS.,
BY: MARC Z. EDELL, ESQ. & CYNTHIA WALTERS, ESQ.
-and-
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Pursuant to Section 753 Title 28 United States Code, the following transcript is certified to be an accurate record as taken stenographically in the above-entitled proceedings.

Phyllis T. Lewis, CSR

PHYLLIS T. LEWIS, C.S.R.
Official Court Reporter - United States District Court
P.O. Box 25588, Newark, New Jersey 07101

P1T 005372

A P P E A R A N C E S: (Continued)

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Attorneys for Defendants,
Philip Morris and Lorillard.

objections.

Could we instruct the jury that we are suspending it to put on the doctor?

MR. EDELL: Then we object, your Honor -- no we don't.

THE COURT: All right.

THE CLERK: All remaining standing.

(Jury present.)

THE COURT: Please be seated.

Members of the jury, we are going to suspend the reading of the deposition of Mrs. Cipollone, so we can call a witness to the stand and that is with the consent of all of the attorneys.

Mr. Sirridge?

MR. SIRRIDGE: We call Doctor J. Frederick Laucius to the stand.

And, your Honor, we also have jury binders.

THE COURT: All right.

The classic jury binders.

(Binders are handed out to the jury.)

THE COURT: Swear in the witness, please.

J O S E P H F R E D E R I C K L A U C I U S, having been duly sworn, testified as follows:

P1T 005440

THE CLERK: Please be seated.

State your name and spell your last name for the record.

THE WITNESS: J. Frederick L-a-u-c-i-u-s.

THE COURT: Mr. Sirridge?

MR. SIRRIDGE: Thank you, your Honor.

DIRECT EXAMINATION

BY MR. SIRRIDGE:

Q Dr. Laucius, how old are you?

A Forty-six.

Q And what is your profession?

A I am a physician specializing in medical oncology.

Q What is medical oncology?

A The diagnosis and treatment of malignant tumors.

Q Dr. Laucius, are you here as an expert witness to give your opinion about the diagnosis of Mrs. Cipollone?

A Yes, I am.

Q Where did you go to undergraduate school?

A That's Swarthmore College in Swarthmore, Pennsylvania.

Q What kind of an degree did you get?

A Bachelor of arts with a major in zoology.

Q And where did you go to medical school?

A I went to Thomas Jefferson University Medical College.

Q And what is your present position?

A I am attending physician at three different hospitals, practice medical oncology, the hospitals are Thomas Jefferson University in Philadelphia, Methodist Hospital, which is also in Philadelphia, Nazareth Hospital, also in Philadelphia.

Q And is your position connected with a medical school?

A Yes.

I am on the faculty of the medical school, which is Thomas Jefferson University Medical College.

Q Let me ask you where you got your medical training after you got your medical degree?

A When I graduated from medical school in 1967, I was with what is now a PG-1 which at the time was called an intern, at Philadelphia General Hospital in Philadelphia, Pennsylvania.

Q After that internship, what kind of training did you get?

A At the time we were fighting the war in Southeast Asia so I got training in the United States Army.

Q What kind of duties and responsibilities did you have in your role with the United States Army?

A At the time we were fighting the war in Southeast Asia, I was assigned to the Republic of South Vietnam, 1st Infantry Division. First six months were an infantry battalion and my second six months was the clearing station,

which would be a small group of four physicians.
Q What kind of medical work did you do in that role?
A Predominantly emergency work.
Q Did you receive any honors when you were in the Army?
A Yes, I did.
Q And what were they?
A Received four honors in Southeast Asia; a Silver Star, two Bronze Stars and a Purple Heart.
Q And when you returned from the service, did you continue your training in medicine?
A My second year I spent at Cook Army Hospital, and then I finished that and became a resident at Thomas Jefferson Hospital as a medical resident.
Q What kind of residency was that?
A It was a residency at studying adult diseases, non-surgical treatments of adult diseases.
Q Could you describe for the jury a little bit about Thomas Jefferson University Hospital. What kind of an institution is it?
A Well, the medical college and the hospital is a 690-bed hospital attached to a medical school, takes care of patients.
Q Okay?
A It supports research, teaching, patient care.
Q Okay.

Do you have offices in the hospital?

A In the hospital itself every other floor is physicians and offices and the other floors are patient rooms.

Q After you completed your residency in internal medicine, what kind of training did you pursue?

A Then after a year of medicine, I took a year of medical oncology, which was -- that was the first year was done at Jefferson, and then I was asked to be chief resident at Jefferson and I was chief resident in medicine, and then the following year I was at the Institute For Cancer Research, American Oncology Hospital, in Philadelphia.

I took a second year fellowship.

Q What is the American Oncology Hospital?

A American Oncology Hospital?

Q Yes.

A A cancer center. One of the cancer centers of Philadelphia.

Q What about the Institute For Cancer Research?

A Well, there is no patient care. That is the research arm, most of the laboratory research.

Q While you were there did you do research and see patients?

A Yes. The second year we were a fellowship, predominantly a research -- stuck to very specific tumor types instead of taking all kinds.

Q Doctor, why did you decide to be a medical specialist in cancer oncology?

A I came back from the service, I spent a year at Aberdene in the Army and there I was a medical officer and they were short doctors and I was taking care of histo medical patients, and it turned out I knew a fair amount about all subjects, except medical oncology and sometimes when you start with basics, it turns out to be the most fascinating.

Then when I was a resident, the same thing happened. It was a time of intellectual explosion as far as treatments. The biotechnology revolution occurred, especially in medical oncology.

Q Could you describe to the jury what you do on a daily basis? Describe your current medical practice.

A Well, I have two associates, two partners. So we have a three-man group.

We have an academically based hospital practice and we have teaching responsibility. My year varies according to what schedule I have.

In general I see patients on Mondays and Fridays at Jefferson, Tuesday and Wednesday at Nazareth.

Thursday I get to have some fun. I just take care of hospital patients and attend teaching conferences in the morning.

Once or twice a year I am teaching attendant and

when I have to take care of not just cancer patients but all patients.

Q Doctor, are you board certified?

A Yes, I am.

Q In what medical areas?

A Well, the first is American Board of Internal Medicine and the subspecialty of medical oncology.

Q How do you get board certified in both of those?

A You have to take training and your chief of medicine has to recommend you as being -- having the experience and knowledge that you should be eligible to take an examination, tests by examination.

Q Besides the duties and responsibilities that you described to the jury, are you active on hospital medical committees and issues within the hospital?

A Yes.

Q Could you explain to the jury some of the things you work on at the Thomas Jefferson and the other hospitals, medical committees?

A I was elected to the executive committee of Jefferson, which is a committee that runs -- relates to the hospital administration and the university as far as in-patient care.

I helped the infections committee.

I am a member of a lot of task forces to study problems. The most recent one being the AIDS Task Force.

Q Why would you be involved in the AIDS Task Force?

A I guess I am a willing worker, that is one thing.

I have an open mind, and I was selected, I guess.

Q And is there a cancer committee at any of the hospitals?

A Yes, one at Jefferson.

Q Are you involved in it?

A I am a member.

Q Could you explain to the jury briefly what your teaching responsibilities are at Thomas Jefferson University Medical School?

A Well, in general you are supposed -- American medicine is practiced by learning by experience, so the sophmore year, second year, we are responsible for teaching on the didactics, basically lectures, review courses.

And the second year we also teach them their first physical diagnosis and I do that.

The sophmore year they actually get to examine patients and do histories.

And they present those and try to organize a synthesis of how that is done.

Senior year they actually act as interns. Orders are not carried out, because they have to be co-signed by residents, and the teaching is variable depending on the level. Then residents and the interns have to be taught also.

In general what happens, a patient is admitted, let's us say an in-patient, and they do a history and physical, evaluate the patient, make an assessment. At the same time people at different levels are making their assessments as well as the attendant.

At the end there is a concensus meeting and the attendant and resident make a plan of action as far as diagnosis and treatment.

Q Besides your work with the medical students who are at Thomas Jefferson, is there a training program in cancer medicine at Thomas Jefferson?

A Yes.

Q Are you involved in that?

A Yes. We have one medical oncology fellow. We work in general now with hemotology so they have to take both hemotology and oncology.

Q Do you work with that program and have you for the last few years?

A Yes.

MR. SIRRIDGE: Could I request that the jury turn to Page 2 of Dr. Lucius' background curriculum vitae.

THE COURT: The jury may turn.

Q I would like to ask you about some of the memberships you have, Dr. Lucius, down at the bottom part of the page.

Could you explain to the jury those -- which of

those you feel are the most significant?

A Well, three that have to do with medicine as a group.

Physicians, that are the Philadelphia County Medical Society. Pennsylvania Medical College and the National which is the American Medical Association.

They have to do with predominantly in organizing training of physicians, medical students, having input into public health, and also have economic concerns about how to organize. A society to deliver medical care better, so those three are the ones that are important. They are all interrelated.

Then the College of Physicians is the American College of Physicians. I was a member of that and elected as a fellow in 1980. Basically the fellowship is for research.

I am a fellow of the College of Physicians of Philadelphia, that is predominantly in this case predominantly a library kind of activity, history of medicine, rather than anything. Perhaps maybe altruism at its best.

The Eastern Cooperative Oncology Group is organized into different researching groups as far as treating people with cancer. Eastern Cooperative Oncology Group happens to include my school, Jefferson as well as others in Philadelphia.

So those are the headquarters in Wisconsin, so the names necessarily don't indicate the original geography.

We are predominantly interested in diagnosis and treatment. Predominantly of malignant cancer with radiation chemotherapy, not just medical oncologists but also surgeons and radiation therapists and oncologists.

Q Why do you feel it's important to be involved in the Eastern Cooperative Group?

A I think the lesson that is learned is to try to improve the result of treatment with people with cancer, has to do with the fact that to be able to choose between two treatments, A and B.

It takes large numbers of patients and any one individual's person and experience would take forever to make a correct diagnosis and outcome determination, but by organizing it can be speed up appreciably.

Q What would be the goal of the organization?

A The goal would be that you to have -- would have a drug or treatment to eliminate cancer. That would be the ideal.

Q Dr. Laucius, have you had any medical publications?

A Yes, I have.

Q And in what areas have they generally fallen in?

A Well, they fall into two groups. I think three groups.

Most common one is the type of the Institute at Cancer Research when I was working with Prehn, Bordutha, and

Mastrangelo. We were predominantly interested and was trying to turn around imaunology in the favor of cancer to say I want you to give me the therapeutic techniques to allow a person to reject his own tumor.

Actually playing wars. The one that was tumors were antigenics. Animals could be immunized against tumors to begin with, so at the time we were interested in what would be non-specific antigens. We could measure the body and simulate tumors.

Turned out that the machines themselves were weak although some of the ideas that we participated in, tumor vaccines are still used. The fact that some needed immunity stronger in the last five years, the biological area have given us mechaniam.

Second group had to do with chemotherapy itself and you can see there are chemotherapy trials that have to do with different kinds of drugs used to treat different things.

And then the third group has to do with things that are generally noted, things having to do with how to find out whether something is dislodged, have to do with patient care, what does numothorax mean when you have a sarcoma.

Q Doctor, where are you licensed to practice medicine?

A New Jersey and Pennsylvania.

Q How much of your medical practice with patients involves

just the treatment of cancer patients?

A I would say close to 99 percent although when you treat a patient, you have to treat usually the whole family. It is not a person by itself.

Q What are the most frequent types of cancer that you see as a doctor?

A Well, in some ways I am a little biased as far as presentation.

At university hospitals, you have indigent populations as well. So to say in general, the common tumors, which are breast, lung, colon and lymphomas which include Hodgkins and non-Hodgkins make up the most common but I say head, neck make up a large number probably because of University Hospital attract those.

Q You were using the terms, based in terms of selection of patients?

A Selections.

There is a slew of relatively poor people who oftentimes don't get private medical care and universities are committed to achieving that.

Q How many years of experience have you had in receiving lung cancer patients?

A I guess if you count experiences in medicine, you count from when you were a student.

I think as far as being a resident, I would say we

have had about 18 years.
Q And I know some times it is hard to estimate but how many new cases of lung cancer would your group see each year?
A Well, there are three. So we see 800, 800 new patients, let's say a year, sizeable number. I would say about a 150 to 200 lung cancer patients.
Q What percentage of those would be small cell carcinoma?
A Probably about a third, 40, 50 small cell lung cancers a year.
Q Over your career how many small cell carcinoma patients of the lung have you seen over your career?
A Approximately 500.
Q Okay.
A Actually involved in their care. Probably seen more than that. There are other oncologists I deal with. They take care of patients but I was not responsible.
Q You have been directly responsible for about 500?
A Yes, my partners and myself. We covered weekends, so I have seen them all.
Q And have you had experience with carcinoid tumors?
A Yes, I have.
Q And what types of carcinoid tumors have you had experience with?
A In general carcinoids as two types. The type that is

localized, which is -- falls into -- histologically falls under malignant carcinoid or carcinoid when they spread. And then we have what we call atypical carcinoid, the ones in the chest which is relevant to this case, are infrequent to relatively rare tumor, makes up about one percent of pulmonary neoplasm, probably less.

Q How many malignants carcinoids of the lung have you seen in your practice?

A Eight.

Q What are generally the major treatments for lung cancer? You can describe generally what are they.

A Currently there are only three treatments that are possibilities as far as lung cancer. There is surgery, radiation and chemotherapy.

Q What is the most common treatment for malignant carcinoid of the lung?

A Surgery.

Q What is the most common treatment for small cell carcinoma?

A Chemotherapy.

Q And Dr. Laucius, did you ever treat patients for cancer without receiving a final pathology diagnosis?

A Yes.

Q Do those cases involve lung cancer sometimes?

A Yes.

Q Have you ever given treatment and made a diagnosis without a final pathology diagnosis in a lung cancer case?
A Yes.
Q Have you ever had a situation where there was a difference of opinion among pathologists about the pathology diagnosis and you had to make a medical diagnosis in the case?
A Yes.
Q In treating patients with cancer or suspected cancer or evaluating patients with cancer, what sort of things do you look to as a doctor?
A First thing you usually look to the patient, what they have to say, attached to a computer so the symptoms are of interest. Then there is a physical. Usually have to examine the patients. And you look at blood tests, x-rays, clinical course. That is all that goes into making a decision.
Q And do you use laboratory tests besides blood tests?
A Yes.
Q Doctor, is it your responsibility to make a medical diagnosis in a case where you are the primary treating physician?
A That is true, yes.
Q And is your diagnosis contained in the medical records when you are a primary treating physician?

A Yes. The attending physician at every hospital is responsible for the discharge diagnosis.

MR. SIRRIDGE: At this time I would like to offer him as an expert in medical oncology and in the diagnosis and treatment of cancer.

THE COURT: Any voir dire or objections?

MS. WALTERS: No, Judge.

THE COURT: You may examine him as an expert in the field for which he has been proffered.

Q Dr. Laucius do you consider carcinoid tumors to be cancer?

A Yes.

Q Do the terms "malignant carcinoid" and "atypical carcinoid" mean the same to you?

A Yes.

Q Do you use the term "malignant carcinoid" in a different way than pathologists use it sometimes?

A Yes.

Q And could you explain to the jury how you use the term "malignant" as it would apply to a malignant carcinoid?

A Well, in general there are many classifications for the small cell carcinoid tumors. The ones that have been clinically useful are the ones that are separated into carcinoid as a group which includes carcinoids, malignant carcinoids and atypical carcinoids.

Atypical carcinoids under microscope have a higher tendency to spread. Malignant carcinoids by their definition have features that tell you that they are going to spread or have already been metastatic. Carcinoid would be the tumor that is well differentiated that looks close to normal that has a very low risk of spreading. However, it is only a probability for each of them. Some of them have a high probability, but they all have a potential of being able to spread.

Q Can a carcinoid tumor diagnosed as typical by a pathologist end up being a malignant carcinoid?

A Yes.

Q As you discussed, a tumor which is called atypical by the pathologists can also end up being a malignant carcinoid?

A Yes.

Q With all these terms sort of around with the pathologists and oncologists and others, how do you avoid confusion with the terms?

A Usually we talk. There is the discussion, people get involved in treatment of cancers in general with the surgeons, pulmonary doctors, radiation therapists, medical oncologists, so we do agree on our terms and outline a treatment.

Q Were these with the different specialities treating the

patient at the time --

A Pathologists will usually word their reports in a way to allow universal understanding.

Q Would you agree that the terminology is changing somewhat in this area?

A For sure.

I think no one is exactly happy with the way terminology is working its way out, and you see many attempts -- and I guess the jury has probably heard -- many attempts at trying to straighten it out to allow differentation. I think this case shows there is tremendous confusion and difficulty.

Q What parts of the body do carcinoids appear?

A In the intestines, appendix, small bowel, ileum. They can occur elsewhere in the stomach and pancreas, stomach and lung, the cervix, thyroid.

Q And do both nonmalignant and malignant carcinoids occur in all these locations?

A Yes.

The probability of malignancy has something to do with site. The ones in the appendix are rarely metastasized. The ones in other places have a higher tendency to.

Q Do typical and atypical carcinoids by histology begin with the same cell when they originate?

A We believe so. Obviously you can't do transplantation experiments in humans where you give one person a tumor and see what they really look like. But we believe they have a common cell origin.

Q Doctor, when did I first contact you about this case?

A In August of 1986.

Q And what did I ask you to do?

A Asked me to review a medical record.

Q And after you reviewed the record what did I ask you to do?

A Wanted me to make an assessment or diagnosis of what was wrong with this patient.

Q Do you have an expert opinion on Mrs. Cipollone's diagnosis?

A Yes.

Q What is that opinion?

A She died of malignant carcinoid.

Q What did you rely on to reach your diagnosis or release your expert opinion about the diagnosis of malignant carcinoid? What are the things you relied on?

A I relied upon basically the information that was provided. I relied upon the chart, which was the history and physical, the laboratory studies, x-ray reports and later the films, and then the pathology, and later the slides and the clinical course, what happened to it.

Q. How many hours have you spent reviewing records and working on this case?
A. Probably close to a hundred.
Q. And have you been compensated for your time?
A. Yes,. I have.
Q. And approximately how much have you been compensated?
A. About eleven, twelve thousand dollars.
Q. Dr. Laucius, have you ever agreed to be listed as an expert in any other cases involving tobacco?
A. Yes.
Q. And where is that case set, or where is it located?
A. Also in New Jersey. It's a case of carcinoma to the pleura.
Q. Have you given a deposition or testified in that case before?
A. No.
Q. Is this the first time you ever testified in court in a tobacco matter?
A. Yes.
Q. Have you been involved in any other legal cases as a witness in the past?
A. Yes.
Q. And how many are those?
A. Two.
Q. And in those cases, had you been the treating physician of

both of those Plaintiffs in that case?
A. Yes.
Q. And which side did you testify for as an expert in that case, those cases?
A. As Plaintiff's side. One case was -- it's not a suit, I think it was a -- it sits different, before an Administrative Law Judge, I think, in Workmen's Compensation. That's a different kind of adversarial proceeding. I'm not sure. But it was a Workmen's Compensation case.
Q. And you testified on behalf of your patient?
A. Yes.
Q. Just getting back to your research in the mid-seventies, Dr. Laucius, who funded the research you did at the American Oncologic Hospital?
A. And also at Jefferson.

The funding has always been from the National Institute of Health, National Cancer Institute.

Q. Are both those organizations part of the Federal Government?
A. Yes, they are.
Q. I'm sorry?
A. Yes.
Q. Dr. Laucius, referring you to Mrs. Cipollone's treatment and to the year of 1981, do you know how her lung condition came to the attention of her treating doctors?

A. Yes, I do.
Q. And how was that? How did that happen?
A. She went for a routine physical and there was an abnormality in the chest x ray.
MR. SIRRIDGE: Your Honor, I've got some records I'm going to be referring to. Would it be all right to tell the jury which pages?
THE COURT: Certainly. All of these are in evidence, Mr. Sirridge?
MR. SIRRIDGE: Yes, they are.
THE COURT: The jury may then turn to the pages designated by Mr. Sirridge.
MR. SIRRIDGE: Why don't we start with page three, if that will be all right.
Q. Dr. Laucius, does this indicate, this particular record indicate how the condition was first discovered?
A. Yes, it does. Under Chief Complaint chart -- shall I go on?
Q. Yes, what does it say there?
A. "Spot on lung picked up on 7/23/81 on annual exam."
Q. And does that fact that it was picked up on annual exam have any significance for you in this case, Dr. Laucius?
A. Yes, it does.
Q. And what would that significance be?
A. Well, in general, I think that, my opinion hinges on what

is the pathology and how is it a clinical course, and information that we have, try to balance it into a decision between two possibilities. One possibility is that Mrs. Cipollone had a small cell, an oat cell carcinoma of the lung, and the other possibility is that she had a carcinoid in the lung, and in general, right off the bat, we find a spot on the lung; we know that a vast majority of the small cell carcinomas, oat cell carcinomas have a rapid growth rate, and they are not the ones that are routinely picked up on routine chest x rays as a spot on the lung. It's an unusual way, because these people are presented with symptoms, in general, symptoms associated with metastasis as they spread outside the chest, and the majority of them have symptoms inside the chest, they cause coughing up of blood and shortness of breath.

Q. You're referring to patients with small cell carcinoma?

A. Yes, and the ones that are carcinoid are the ones that are found on incidental x rays, the ones you expect. There are a whole series of things that are found that are similar to carcinoid that also can be hamartomas, and all kinds of funguses are found without any symptoms, they're found as a pulmonary nodule.

Q. And these are the atypical carcinoids?

A. Generally are the ones that are found on the periphery.

Q. Referring to the same record on page three, Dr. Laucius, are there any other symptoms on the page that you found of

importance?

A. I think the one that's most important is going to be the one that says flush, SX means symptom, of one year, diarrhea off and on -- off and on for 15 years. Flushing, a new diagnosis, led to a lot of the laboratory investigation that occurred on this patient.

Q. Is flushing related to carcinoid in your experience?

A. Yes, it is.

Q. And did Dr. Seriff relate the flushing here to carcinoid?

A. Yes, he did. I think on the following page, you'll see that he has carcinoid -- impression, I-M-P means impression in medicine, you'll see he'll say carcinoid syndrome.

Q. Dr. Laucius, did the flushing symptom lead to a test called 5HIAA?

A. Yes, it did.

Q. And where was that test made?

A. The test is made on the urine. It's done to collect urine. These people have an ability to decarboxylate tryptophan, which ends up in the urine when the body is finished with it. 5 hydroxy, indole, which is the base, acetic acid, they lead to 5 hydroxyindoleacetic acid. The body puts the hydroxyl in the fifth position, indole is what's left after the tryptophan has been deanimated, and acetic acid is connected, which is the same thing that's actual vinegar.

Q. And, Dr. Laucius, I'll ask you and the jury to refer to

page seven of the binders.

Is this the test at the bottom of the page you've been discussing, Doctor?

A. Yes, it is.

Q. And could you tell me what the measurement showed?

A. Well, when you look at the study, the first thing they look for is to see what is the total volume to make a diagnosis.

Q. I'm sorry, Doctor, I didn't hear you.

A. You look at the volume and you see that the total volume is 2,100 cc's, and that's comparable with a 24 ounce collection. Then you look at the absolute value, you see it's 15.5, 15 and a half milligrams over 24 hours, and you will see that that's similar to national levels. High normal is 10. Many people would say a high normal is nine.

Q. Now, is that consistent with a carcinoid tumor of the lung?

A. Yes, it is.

Q. Now, at this same time, when Mrs. Cipollone was in the hospital in August, what medical procedures were performed on her?

A. Well, she was evaluated for, to be resected.

Q. Is that the same thing as being operated on?

A. Yes. So the procedure was a bronchoscopy.

Q. And after the bronchoscopy, what kind of procedure was done?

A. The patient had a thoracotomy, had a removal of the tumor.
Q. And I'll ask the jury to turn to page 11, and you do the same, Doctor.
Doctor, what does page 11 reflect?
A. This is the operative report that the surgeon submits for pathologic examination.
Q. Doctor, I'd ask you to look on page 12 and ask you again, is this the operative report or the pathology report?
A. This is a pathology report, 11 and 12.
Q. I'm sorry, you said surgery.
A. That's what -- the report on the material that the surgeon sends to the pathologist.
Q. Right.
Could you tell me what the report says about the location of the tumor, Dr. Laucius?
A. Yes. I think you can see, first thing is, they looked at the specimen, and it's in five parts. The part that's relevant is part C. We can see that it starts, medially and posteriorly located peripherally --.
Q. Doctor, slow down just a little for the court reporter.
A. Medially and posteriorly located peripherally, there is a well circumscribed firm white yellow subpleural mass which measures one and a half by two by one centimeter, and this mass is five millimeters away from the pleura and does not retract away from the pleura.

Q. So does this report indicate whether the tumor was central or peripheral?

A. It clearly says it's peripheral, and also even gives a measurement of how far off it is away, almost a quarter of an inch, five millimeters.

Q. Does that have any significance for you?

A. Yes, it does, because it's small cell. Oat cell carcinomas are diseases of the bronchi, of the breather tubes. This one is on the outside of the lung, where you expect an atypical carcinoma.

Q. Doctor, directing your attention to page 12, what does the report say about the lymph nodes that were examined?

A. There were five negative lymph nodes that were involved.

Q. And when you say negative, what does that mean?

A. It means that there were no tumor discerned in them.

Q. Does that fact have significance to you?

A. Yes, it does.

Q. And what is that?

A. It was small cell lung cancers, oat cells have a high probability of involving lymph nodes early on. The fact that they're negative, it's more compatible with the carcinoid tumor.

Q. Doctor, what is the final pathology diagnosis on the bottom of page 11?

A. It's classified as neuroendocrine carcinoma, so perhaps it's atypical carcinoid or malignant carcinoid of the lung.

Q. And does the neuroendocrine carcinoid help you as an oncologist?

A. No, it doesn't.

Q. What are the important things for you?

A. Well, I think that we segregate small cells and carcinoids out as, prognostically, and also as far as treatment is concerned, so we use the term neuroendocrine means that it's -- the original theory is that these things were of neural origin, these things, cells of origin had migrated from the brain, the central nervous system, during embryology, and the endocrine part had to do with that they made hormones. You can reasonably determine that not all these cells that became cancerous are of neural origin, they don't come from the nervous system, and the second thing that happened was that we found out that the endocrine features were also not necessarily associated with this kind of tumor, that many kinds of tumors made hormones, and even some bacteria made some of the same kinds of hormones. They're believed to be unicellular. But the neuroendocrine concept has not proved to be the greatest as far as predicting what happens to a person or projecting what treatment should be given.

Q. Doctor, was there any further treatment given to Mrs. Cipollone after the lobectomy?

A. No, there was not.

Q. Turning and asking you about May of 1982, and asking you

to refer to page 13 in the binder, can you explain what procedures were done to Mrs. Cipollone in May of 1982?

A. Yes. This is a bronchoscopy, when the patient had a recurrence, and you can see that the diagnosis, we have two diagnoses here. The first one is a diagnosis of a small cell cancer, small cell carcinoma, oat cell type, recurrent in bronchus.

Q. And who made that diagnosis?

A. By Dr. Snyder, and then we have two other pathologists, who believe that the present biopsy is similar to the tumor diagnosed in 1981 - that is to say, a malignant carcinoid tumor.

Q. Dr. Laucius, does this record indicate that there was a difference of opinion among pathologists about the diagnosis?

A. Yes.

Q. Referring to the next page, page 14, Doctor, were there cytology samples taken during bronchoscopy?

A. Yes, there were.

Q. And what does this record say about that?

A. It says they are tumor cells consistent with atypical carcinoid. I was unable to figure out who signed it.

Q. And was there surgery performed in 1982, Doctor?

A. Yes, there was.

Q. I'll refer you to page 19 in the binders, and, Doctor, who was the surgeon?

A. Dr. Steichen.

Q. And can you tell from the record what Dr. Steichen said about the location of the previous tumor in 1981?

A. Yes, I can.

Q. And what does he say about that?

A. He said it was peripheral, localized peripheral carcinoid tumor.

Q. And do you know whether during his operation in 1982 Dr. Steichen examined the mediastinal lymph nodes?

A. Yes, he did.

Q. And what did he find?

A. He found no abnormal tumors, no cancerous lymph nodes.

Q. And was that later confirmed on pathology?

A. Yes, it was. The mediastinum itself, which is the layer that lies between the lung, was negative under pathology.

Q. Now, does the fact that there was no cancer in the mediastinal nodes have any significance for you?

A. Yes, it does.

Q. What is that?

A. Makes it more probable that this is a carcinoid tumor as opposed to an oat cell, small cell cancer.

Q. And why is that?

A. That's to say that the small cell cancers are more likely to have spread, just as they -- same rule. The line of evidence in 1981 applies to 1982.

Q. And were there other attempts made in June of 1982 to

determine whether there was further spread of Mrs. Cipollone's tumor besides the lung?

A. Yes, there were.

Q. And what do those reports find?

A. The whole series of scans and x rays were performed. They found no evidence that any other organ was involved.

Q. Did you review those scans?

A. Yes, I did.

Q. And of what significance to you is the fact that those scans were negative for cancer in other locations besides the lung?

A. Well, makes it, again, more likely that this is a carcinoid that's behaving in an indolent, slow fashion as opposed to a rapid spread, rapid growth kind of behavior that you expect from a small cell, an oat cell cancer.

MS. WALTERS: Judge, could we have a side bar, please?

(The following takes place at side bar)

MS. WALTERS: I have two things. One, the witness is not testifying. Mr. Sirridge has been leading him continuously during this examination. I think it's improper.

Secondly, this witness has not said one thing that hasn't been said over and over by other witnesses in this case, and I think the representation was made that he was going to cover new ground, and I haven't heard a thing that's new yet.

THE COURT: It does sound very familiar.

MR. SIRRIDGE: First of all, Your Honor, what I've been trying to do is move the examination along from a clinical course point of view rather than use a lot of exhibits, which do take time to bring up and go over, and obviously the doctor is relying on his clinical experience and the clinical course, and in that regard, we are covering this material I think very quickly and it's forming the basis for his opinion, and he's about to get to areas which he is going to add something to what we have heard before, but I think it's a very critical area for him to review the clinical course, and he said that's relied on. I think this is a very efficient way to do it by the records and without going --

THE COURT: Well, it's only the repetition of it. Can't he say that he's relied upon it and get to his conclusion and the basis for it without again reading into the record what's been in there 10 times?

MR. SIRRIDGE: Well, what's not been read into the record 10 times is the significance he may place on the records. It's one thing to read a record and say, here's what it says, I rely on it, but it's quite another for an oncologist to say, that record has particular significance to me as an oncologist and here are my brief comments about it. That's the format which I've tried to place this testimony within, and it's not going to be a long testimony, Your Honor.

MS. WALTERS: Judge, I think he should ask him what

his opinions are and what the basis for them are rather than taking him step by step in a leading fashion through the record.

THE COURT: It has been leading, but I'll deal with those when there are specific objections made.

How much more do you have on this witness in time?

MR. SIRRIDGE: I think I can finish today.

THE COURT: Okay.

MR. SIRRIDGE: If I'm allowed.

(Laughter)

(The following takes place in open court)

Q. Dr. Laucius, were tests of Mrs. Cipollone's urine done in 1982, in June?

A. Yes, they were.

Q. And have you reviewed that record?

A. Yes, I have.

Q. And I would ask the jury to turn to page 15.

Could you briefly tell the jury, Dr. Laucius, what you believe is significant out of this record?

A. Well, I think that the third element that was tested is the 5 hydroxy, the one that has double asterisks, shows that the 5 hydroxyindoleacetic acid is raised; in fact, this time it's higher than the first one, it's 25.4 milligrams over 24 hours. Again, they give the same norm always, and then also, in this one, which was sent to Sinai, they did chromotography, which also showed that 5HTP was being excreted in a high

concentration. This is a -- not a quantitative test.
Q. Now, Doctor, in your experience, are 5HIAA and 5HTP tests ordered for suspected small cell patients?
A. They're not.
Q. Are these tests ordered by you in your experience with carcinoid tumors?
A. Yes, they were.
Q. ~~Now, what is a carcinoembryonic antigen~~?
A. ~~It's an antigen that occurs on many cells in the body, especially during the fetal development. That's where the carcinoembryonic~~ -- the embryonic comes from fetus, which is fetal tissue. We believe that -- it's accepted, let's say, that cancer cells are cells that have the ability to continue to grow when they shouldn't be. So embryonic, they release this substance from their membranes when they actually divide, and so it can be measured in the blood on many kinds of tumors.
Q. Is there an abbreviation used in medical circles?
A. CEA.
Q. I'm sorry?
A. CEA.
Q. Was CEA measured in Mrs. Cipollone's blood in June of ~~1982~~?
A. ~~Yes, it was.~~
Q. I would ask the jury to turn to page 17.
Dr. Laucius, could you tell the jury what you believe

is significant from this particular record?

A. Well, this is at the time when the patient has the first metastasis. The CEA is normal at 1.6 NG/ML.

Q. Is that level normal or abnormal?

A. That's within normal limits.

Q. And what kinds of levels do you see in small cell patients that are metastasizing?

A. You see levels greater than usually 20. They are appreciably raised.

Q. And, Doctor, were there other measurements of CEA made on Mrs. Cipollone after June of 1982?

A. Yes, there are. I think there was, turned out there were two others. In November and -- of '82 and February of '83.

Q. Now, Doctor, which of those measurements do you believe is the most important in your review of the case?

A. It's usually the one that occurs at the time of metastasis, whether it's going to be a useful tool to follow for occurrence.

Q. And which one was that?

A. The first one, the 1.6. She had a normal value in the face of metastatic disease. Usually this CEA is used not for diagnosing a patient, it's used for following a patient, hope that a rise, let's say, in the CEA will allow you some kind of early detection that the patient has a recurrence, that has a metastasis somewhere.

Q. Now, Dr. Laucius, in your practice, do you do bone marrow biopsies?
A. I do them, yes.
Q. And do you know whether one was done on Mrs. Cipollone in June of 1982?
A. Yes, it was.
Q. Would you turn to page 18, please?
And what was the finding in that particular test, Doctor?
A. The finding was it was normocellular, there was no metastatic tumor present.
Q. And does that finding have significance to you?
A. At least half of the oat cell cancers are positive for bone marrow. It's the favorite site of metastasis, but it's not surprising because I don't believe she has an oat cell carcinoma.
Q. Dr. Laucius, what was the discharge diagnosis in June of 1982?
A. I think she was discharged with a diagnosis of recurrent malignant carcinoid.
Q. I'm going to call your attention to an exhibit, Dr. Laucius.
Did Mrs. Cipollone begin receiving chemotherapy in June of 1982?
A. Yes, she did.

Q. Doctor, I'm going to show you what's been marked as Defense Exhibit 2695 and ask you whether this exhibit would assist you in explaining Mrs. Cipollone's chemotherapy in June of 1982.

A. Yes, it will.

Q. Could you step down?

First of all, Doctor, what type of chemotherapy did Mrs. Cipollone receive?

A. Well, at the time, there were a variety of drugs that are effective in the treatment of small cell, oat cell carcinomas, and she was selected to receive what would be called MACC, it's an acronym, Methotrexate, Adriamycin, Cytoxan CCNU. It had been shown at the same time by trial that multidrugs did better than one drug, and MACC was one of the combinations.

Q. Doctor, why do multidrugs do better than single drugs?

A. Well, it's believed that they work on cells at different sites. The Adriamycin, for example, is believed to be a DNA scan schism, cuts the DNA; the Cytoxan is actually an alcolating agent, where it actually links strands of DNA together; the methotrexate prevents single carbon transfer for the synthesis of thymodine, one of the elements of DNA, prevents actually division; and CCNU works somewhere in between, as an alcolating unit, much like Cytoxan. It's a binder.

So you can get different site effects where you get different drugs to act on tumor cells in the sites.

Q. What was the treatment plan that was prescribed for Mrs. Cipollone?
A. Well, she was to have six monthly cycles, a month apart, where she was to receive all three drugs in combination.
Q. Now, what did Mrs. Cipollone actually receive?
A. She received one course in June, none in July, and received just Methotrexate and Cytoxan in August.
Q. Now, Doctor, in your opinion, was this effective chemotherapy treatment?
A. No.
Q. Thank you. You can resume your seat

Doctor, do you recall why Mrs. Cipollone's treatment was stopped?
A. Yes, I can.
Q. And why was that?
A. She was believed to have had significant side effects, and also believed to have a pulmonary embolism.
Q. Did she in fact have a pulmonary embolism?
A. She did not.
Q. I will now ask the jury to turn to page 24 of the binders.

Dr. Laucius, what is this record?
A. This is the Hackensack Hospital Admission Sheet, where the patients are -- I guess discharge sheet, and shows that for Principal Diagnosis was chest pain, uncertain etiology. Curiously enough, she gave a history here of having carcinoid of

the lung post-pneumonectomy. This was a different hospital than Lenox Hill.

Q. And what's the date on this record, Doctor?

A. She was admitted 8/2/82 and discharged 8/10/1982, August.

Q. And do you know whether any pulmonary embolism was found in that hospitalization?

A. No, she had a -- a lung scan, which showed that -- what's called a ventilation profusion scan. When you find an embolism, obviously it's inside the vascular, but it does nothing to the airway, so what's done is measuring airway width by using a radio isotope that they give, and then by giving a radioactive-dyed blood injection and see what the blood vessels look like, and if the blood vessels have no blood flowing through them because of clotting, you see no color going through, and if there's air going through, it's called an ventilation profusion mismatch. But none was found.

Q. Doctor, do you remember when Mrs. Cipollone went back into Lenox Hill Hospital in 1982?

A. I think it was December of '82, I believe.

Q. And I would ask the jury to turn to page 29.

Q Doctor, what does this record say about the patient's history?

A Well, the "cc" on these things means chief complaints and there is a quote around it. That means that is the patient's exact words, so usually admissions are characterized by that. So she said her complaint was blood in the urine.

Next line is that "This is a repeat LHH," Lenox Hill Hospital, "admission for a 57 year old W," which stands for white, the sign for female, with a history of "pneumonectomy for a carcinoid tumor," past history of a hysterectomy, surgical removal of gallbladder, ovarian cyst.

Q Doctor, during this examination, were there any attempts to determine whether Mrs. Cipollone's cancer had spread?

A Yes, there were.

Q And what were the results of those diagnostic tests?

A There was no -- the studies did not reveal the presence of any cancer having spread.

Q Did you review those scans?

A Yes, I did.

Q And does that fact have any significance to you?

A Well, again more compatible with carcinoid tumor as opposed to small cell lung cancer.

You would expect some kind of a spread of metastasis with a small cell, the indolent, slow carcinoid

is more compatible with carcinoid tumor as opposed to small cell, oat cell type.

Q In 1983 did Mrs. Cipollone have any tests done on her urine for 5-HIAA?

A Yes.

Q Were those tests normal or abnormal?

A Normal.

Q Do you have any explanation for that?

A She was taking the drug that one doesn't take when one checks it.

Q What drug is that?

A Methyldopa, brand name is Aldomet. Sometimes given a diuretic.

Q Why was that drug prescribed for her?

A Hypertension.

Q ~~Referring you to August of 1983, Doctor, what was Mrs.~~ Cipollone's health condition at that point?

A ~~I think this is getting on when we have metastasis and we have liver metastasis at that time.~~

Q Let me call your attention to page 39.

A Oh, you are ahead of me.

We have another metastasis. This is the adrenal metastasis.

Q And what were the suspected diagnoses at that time?

A I think that the one where you have adrenal metastasis

in a person who had an endocrine you are always worried about pheochromocytoma.

Q Keep your voice up for the court reporter.

A Always worry about pheochromocytoma, which is an active tumor that causes rises in blood pressure because it runs with what is called ultimate neoplasia, where people have diseases that are linked together, and adrenal masses are ones you have to know whether it is going to be a pheochromocytoma, because when you put them to sleep if you don't they have a hypertensive crisis, and their blood pressure goes up high or you have no blood pressure.

Q So what sort of procedure was done on Mrs. Cipollone?

A For one thing, they stopped Aldomet. Gave her special drugs for a blocker and beta blocker (phonetic) and operated, also looked for whether she had any tumor and she didn't, other than the adrenal.

Q Now, what other tests did they do?

A I think they collected her urine again, I believe.

Q What other tests did they do to check for the spread of cancer?

A Scans, x-rays.

Q And have you reviewed those tests?

A Yes, I have.

Q What do they show?

A Showed no evidence of any tumor spread outside the

adrenal glands.

Q What is the fact -- the fact that there was just tumor in the adrenal glands, is that of significance to you?

A Similar significance in that carcinoids are likely to be slow and one site metastasize and small cell cancers are likely to be multiple.

Q Do you know whether there was an oncology consultation at that time in August?

A Yes, there was.

Q I will ask you to turn to page 37A in the jury binder.

What is this report, Dr. Lucius?

A Repeat it.

Q What is this report shown on page 37A?

A This is a consultation to Dr. Ratner, and it gives -- he answers it, says it is "Fascinating right adrenal recurrence of a tumor thought to be either oat cell or carcinoid. There are features of an APUDoma in this patient in that she had systemic symptoms of hot flashes, vasodilation and blood pressure changes prior to recent surgery."

Q What is A-p-u-d-o-m-a? What is that?

A Precursor update. Decarboxylase is an acronym.

Q What is it referring to?

A In this case it is probably referring to presence of Serotonin and the fact that she has the carcinoid syndrome with flushes, flashes. Vasodilation which I guess is

synonymous with blood pressure changes.

Q Can you tell from this record whether any chemotherapy was prescribed?

A It was recommended here, I guess prescribed -- recommended and recommended not using MACC because it was so poorly tolerated in the past, and he thought that it would be appreciable or appropriate to use single agent chemotherapy and thought perhaps adriamycin was ordered with Cytoxan.

Q Do you know whether this was considered effective chemotherapy for small cell carcinoma in 1983?

A It would be considered marginally effective in 1983.

However, one of the drugs anyway would be active. The adriamycin would.

MR. SIRRIDGE: Can I have a short break to get a glass of water?

THE COURT: Yes.

Q Do you have some?

A I am fine.

Q Doctor, in 1984 did Mrs. Cipollone have any further spread of her cancer?

A Yes.

Q And do you recall what sites?

A I think originally it was liver and retroperitoneum.

Q And later other sites?

A Yes.
Q What was the other site?
A Brain.
Q What was the further site -- thank you.
And do you know whether brain metastasis is associated with either malignant carcinoid of the lung or small cell?
A Occurs in both.
Usually occurs early in small cell, about ten percent oat cell present with brain metastasis.
Q Do all the sites -- liver, retroperitoneum area and brain, are those all sites where malignant cancers of the lung spread to?
A Either or nondiscriminate.
Q Now, do you know when Mrs. Cipollone died?
A Yes.
Q When was that?
A I think I have a death certificate here, if I can look at it --
Q All right.
A -- for the exact date.
Q I think that is page 44.
A November 28, 1984.
Q Did you say November or --
A I believe it was November -- October 22, 1984, sorry.

Q Now, how long a period is this from the time that her lung tumor was first discovered?

A Well, three years and three months, 39 months.

Q And what does the report indicate down in the bottom right-hand corner about the "Interval between onset and death"?

A Says "one and a half years."

Q Is that correct?

A No, it is not.

Q Doctor, is the survival of 39 months consistent with your experience with small cell carcinoma of the lung?

A No, would be an extreme.

Q Sorry?

A Would be an extreme for small cell carcinoma of the lung. Unusual, uncommon.

Q Would a survival of 39 months be consistent with your understanding of carcinoids tumor, malignant carcinoid tumor of the lung?

A Yes.

Q Doctor, was there an autopsy performed in this case?

A No.

Q Would an autopsy have provided you with useful information?

A In the past -- in the past autopsies we looked at medical diagnoses of -- one out of four approximately have

led to a new diagnosis for the cause of death. So it would be hypothetical to -- contain worthwhile information giving us an idea where it spread, unusual features, sites of involvement. But it would be hypothetical, yes.

Q Doctor, based on your experience with 500 cases of small cell carcinoma, what has been the median survival of the cases you have treated?

A Less than a year.

Q And have you used chemotherapy in those cases?

A Yes.

Q Do you use the staging system for lung cancer cases that you see?

A Yes.

Q And could you explain that system briefly to the jury?

A The working operation is to try to approach tumors in way that would potentially make a difference.

One that in oncology would look for his treatments for diseases localized enough that treatments would be helpful. You only have two local ways of treatment, which are surgery and radiation therapy.

In small cell cancer you are looking for whether the disease is in the chest or outside of the chest. That is to say, would it be encompassed by radiation or surgery? In which case there are chemotherapy.

Small cell cancer of the lung, we have a different

circumstance in that we have historical information that surgery may not be helpful.

We have first trial involves small cell lung cancer, where they operated on half, radiated half. Survivors were in the radiation group. There were no five year survivors in the surgery group. So historically we have bias towards treating the local treatment modality with small cell cancer of the lung involving radiation.

Most recently with the combination of chemotherapy the idea has been to hit them up from chemotherapy to try to eliminate disease and the most recent trial has been where chemotherapy is given and half the group got radiation, so this is disease for localized in the chest and it turned out that the disease is localized in the chest. People who got chemotherapy plus radiation did far better than the groups who got chemotherapy alone.

Q What stage was Mrs. Cipollone's cancer in August of 1981?

A We believe she would be stage one. Localized to one organ.

Q There has been discussion about stage one small cell carcinoma in this case as an entity.

Have you ever seen any cases of stage one small cell carcinoma?

A Yes, I have.

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Q And what percentage of the cases of small cell carcinoma would that be?
A May less than one percent.
Q And what are the stages of the other cases you have seen of the other 99 percent?
A The vast majority metastatic disease in the center of the chest and the other half of disease outside the chest.
Q And of the malignant carcinoid cases of the lung you have seen, how many of those were stage one?
A About half.
Q Doctor, do you have an opinion within a reasonable degree of medical probability as to the diagnosis of Mrs. Cipollone?
A Yes, I do.
Q And what is the opinion?
A She had malignant carcinoid of the lung and died of metastatic spread.
Q Now, are the opinions that you have expressed here today, Doctor, have they all been given within a reasonable degree of medical probability?
A Yes, sir.

MR. SIRRIDGE: No further questions.

THE COURT: Cross-examine.

MS. WALTERS: Maybe we can get started in the morning. It is almost the end of the day.

THE COURT: All right. We only have ten minutes left.

All right. I will ask the jury to be here tomorrow morning at quarter of ten. We will start between quarter of ten and ten o'clock.

All rise for the jury, please.

Have a nice evening. See you tomorrow. Good night.

(The jury is excused.)

THE COURT: You can step down, Doctor. Thank you.

Please be seated.

(Witness excused.)

THE COURT: What are we doing about the deposition readings?

MS. WALTERS: I have written the objections to the remainder of Mrs. Cipollone's deposition. There are not that many pages and where we have indicated that it is duplicative we indicated the page number to the portion to her deposition that has been read in, so I can give you both of those.

THE COURT: All right. And you have done it already?

MR. KEARNEY: I was also sitting here working and I feel that if I can look at that I can cut out about ten pages that have been designated. But now I will voluntarily